

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF AIR AND RADIATION

Mr. Marty Lassen
Commercial Development and
Marketing Manager
Johnson Matthey
380 Lapp Road
Malvern, PA 19355

AUG - 5 2004

Dear Mr. Lassen:

The U.S. Environmental Protection Agency (EPA) has reviewed your request for verification of Johnson Matthey's CEM<sup>TM</sup> Catalytic Exhaust Muffler and DCC<sup>TM</sup> Catalytic Converter technologies. Based on our evaluation of your verification application, test data and additional information provided, EPA hereby verifies that this technology reduces emissions of certain criteria pollutants by the percentages described in the table below.

This technology is approved for use on the following engines and/or vehicles provided all of the required operating criteria are met as described below:

All highway, heavy-heavy, medium-heavy and light-heavy duty, non-urban bus, 4-cycle, non-EGR diesel engines, including turbo-charged or naturally aspirated and mechanically or electronically injected, originally manufactured from 1998 through 2003 model years.

Technology	Fuel (sulfur content)	Particulate Matter (PM) %	Carbon Monoxide (CO) %	Hydrocarbons (HC) %	Oxides of Nitrogen (NOx) %
CEM <sup>TM</sup> Catalytic Exhaust Muffler and/or DCC <sup>TM</sup> Catalytic Converter	≤ 500 ppm	20	40	50	0

The following operating criteria must be met in order for appropriately retrofitted engines to achieve the aforementioned emissions reductions:

1. The engine must be operated with a fuel that contains a sulfur content of no more than 500 ppm.

- 2. The engine exhaust temperature must achieve at least 150 degrees C during its duty cycle.
- 3. The engine should be well maintained and not consume lubricating oil at a rate greater than that specified by the engine manufacturer.

Johnson Matthey has indicated there is no fuel economy penalty with the use of this technology.

Information on Johnson Matthey's CEM<sup>TM</sup> Catalytic Exhaust Muffler and DCC<sup>TM</sup> Catalytic Converter, percent reduction, applicable engines, and in-use testing program will be posted on the EPA Voluntary Diesel Retrofit Program website (<a href="www.epa.gov/otaq/retrofit">www.epa.gov/otaq/retrofit</a>). As you know, Johnson Matthey will be responsible for completing the required in-use testing program and for submitting all in-use testing data to EPA.

Thank you for participating in EPA's Voluntary Diesel Retrofit Program. If you have any questions or comments, please contact Dennis Johnson, of my staff, at 202-343-9278.

Sincerely,

Merrylin Zaw-Mon, Director

Certification & Compliance Division

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Office of Transportation and Air Quality